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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/502,233	02/11/2000	Chrysanne Dimarco	8700137-0006	4917

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EXAMINER
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BASEHOAR, ADAM L

ART UNIT	PAPER NUMBER
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2178

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DATE MAILED: 02/04/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/502,233

Applicant(s)

DIMARCO ET AL.

Examiner

Adam L Basehoar

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☒ Responsive to communication(s) filed on 13 November 2003.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 13-24 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 13-24 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 8 and 9.
- 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: \_\_\_\_\_.

### DETAILED ACTION

1. This action is responsive to communications: The Request for Reconsideration forwarded to the examiner on 11/13/03 to the original application filed on 02/11/2000.

2. Claims 13-24 are pending in this case. Claims 13 and 19 are independent claims.

#### *Information Disclosure Statement*

3. The examiner notes that the missing IDS, paper number five, resubmitted 11/13/03 has been received and as such was considered by the examiner.

#### *Claim Rejections - 35 USC § 103*

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 13-24 are rejected under 35 U.S.C. 103(a) as being unpatentable over DiMarco, Chrysanne; Hirst, Graeme; Wanner, Leo; and Wilkinson, John. "HealthDoc: Customizing patient information and health education by medical condition and personal characteristics."

*Workshop on Artificial Intelligence in Patient Education*, Glasgow, August 1995,

<http://www.cs.toronto.edu/compling/Publication>. Hereafter known as DiMarco et al.

**-In regard to independent claim 13 and 19**, DiMarco et al teach a system method for the creation of customized patient material using patient information.

a) Where a master document determines an overall data file structure containing all the information the system might need to include (Section 3.1: 2<sup>nd</sup> Paragraph), including text organization, linguistic and stylistic information (fixed information), wherein the elements of the master document structure can be paragraphs, sentences, phrases (Section 3.1: 4<sup>th</sup> Paragraph). The master document also determines the cohesive and coreferential links between them, and the conditions (parameters) under which each element is outputted (Section 6: 3<sup>rd</sup> Paragraph), where the conditions are satisfied by the customization levels (variations) of patient data, medical condition, and personal characteristics (Section 4: Abstract). DiMarco et al do not teach that elements are arranged in a tiered hierarchy system. It would have been obvious to one of ordinary skill in the art at the time of the invention, to have ordered the elements (paragraphs, sentences, phrases) in hierarchal tiers, because if the elements were on the same level (same priority) then repair processing would result in unnecessary processing and delay, in that a variation change applied at the word level could occur before a paragraph variation change that when it's change occurred would no longer need the previously changed word, rendering it unnecessary. Thus for the same reason it would also be obvious that each lower level would be connected to a higher level.

b) A selection engine (Fig. 1) to receive input on the patient data, medical condition, and personal characteristics of the customized document recipient as well as conditions obtained from the master document. DiMarco et al do not teach that selection engine work from the

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highest element down to apply the patient parameters. As shown above in part 'a', it would have been obvious to one of ordinary skill in the art to have done this.

**-In regard to dependent claims 14 and 20,** DiMarco et al state wherein said elements (variant tiers) could have a set of conditions for inclusion associated with it (Section 6: 3<sup>rd</sup> Paragraph). DiMarco et al do not specify that each element had a set of parameters. It would have been obvious to one of ordinary skill in the art at the time of the invention, to have authored each element with a condition under which each element would be included in the output, because the scope of patient care was so diverse with regard to each individual patient that each element would need to be flexible enough to change regularly for each patient's personal information.

**-In regard to dependent claims 15 and 21.** DiMarco et al do not disclose the selection of exactly one variation of each selected element as a result of the associated conditions (parameters) being met. It would have been obvious to one of ordinary skill in the art at the time of the invention, to have selected only one variation for each element of the master document, because it would not be practical to print more than one variation of the same paragraph, sentence, or phrase in the final customized document, wherein it was obvious that each variation was chosen as a result of its conditions and input parameters.

**-In regard to dependent claims 16 and 22,** DiMarco et al further state wherein the elements gathered from the master document comprise content (text organization, choice of

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words, lexical cohesive structure, etc) (Section 5: 8<sup>th</sup> Paragraph) to be included in the final customized document and conditions for inclusion (parameters) (Section 6: 3<sup>rd</sup> Paragraph) of said elements

**-In regard to dependent claims 17 and 23.** DiMarco et al do not state wherein the hierarchy comprises objects arranged in classes and the selection engine being instantiated from said elements. It would have been obvious to one of ordinary skill in the art at the time of the invention, to have used an object-oriented programming method in relation to the hierarchy - elements and search engine, because it was known in the art to use object oriented programming for defining a data structure of a set of items, and the data and operations that effect each item.

**-In regard to dependent claims 18 and 24,** Dimarco et al further state wherein the hierarchy structures selected from the master document are modified (repaired) by a sentence planner that enforces focus control, constituent ordering, reference relations, lexical choice, and sentence aggregation, which would constitute a grammar (Section 8.1)(Examples 13-15).

***Response to Arguments***

6. Applicant's arguments filed 11/13/03 have been fully considered but they are not persuasive.

**-In regard to independent claims 13 and 19**, applicant argues that Dimarco et al do not show any reference of the desirability of the tiered hierarchy system. The examiner notes that while not explicitly stated, Dimarco et al maintains different content element levels (i.e. paragraphs, sentences, and phrases) that are equivalent to a tiered system and that the motivation provided in the office action is an embodiment showing why sequential tier replacement would be necessary and obvious in Dimarco et al.

The applicant also argues that Dimarco et al do not show tiers. The examiner stated in the above paragraph that while not explicitly stated the use of element tiers are equivalent to the element paragraphs, sentences, and phrases.

The applicant further argues that Dimarco et al do not teach a first and second tier type and a connection between said tier types. The examiner notes that Dimarco et al do teach this wherein the component elements of paragraphs, sentences, and phrases are the first tiers and the second tiers are the multiple variations of said first tiers with a semantic relationship (connection) between them (Sections 7.1 & 8.1).

The applicant further argues that Dimarco et al do not teach parameters associated with at least one of said tiers. Dimarco et al teach conditions (parameters) for the elements to be outputted based on patient data, patient medical condition, and personal characteristics (Section 4 & Section 6: 3<sup>rd</sup> Paragraph)

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The applicant further argues that Dimarco et al do not teach a selection engine. The examiner notes that that Dimarco et al do teach a selection engine for operation on the tiers, wherein the engine is represented in Fig. 1 and one of its embodiments in Fig. 2.

**-In regard to dependent claims 14-18 and 20-24,** the claims still depend from rejected independent claims and as such the earlier rejections of the first office action still apply.



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***Conclusion***

7. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

US: 5,207,580      05/04/93      Strecher

9. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Adam L Basehoar whose telephone number is (703) 305-7212. The examiner can normally be reached on M-F: 7:30am - 4:00pm.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Heather Herndon can be reached on (703) 308-5186. The fax phone numbers for the organization where this application or proceeding is assigned are 703-746-7239 for regular communications and 703-746-7238 for After Final communications.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 703-305-3900.

ALB  
January 22, 2004



**STEPHEN S. HONG**  
**PRIMARY EXAMINER**